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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,372	03/05/2002	Graham Andrew Cairns	YAMAP0805US	8248
7590 01/29/2004				
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		EXAMINER		
		NGUYEN, KIMNHUNG T		
		ART UNIT		
		2674		
		PAPER NUMBER		
		5		
		DATE MAILED: 01/29/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,372

Applicant(s)

CAIRNS ET AL.

Examiner

Kimnhung Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This application has been examined. The claims 1-29 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito (US patent 6,426,594).

Regarding claim 1, Ito discloses in figure 11, a controller (data input control circuit 254) for controlling the frame refresh rate of an active matrix display, characterized by comprising a first circuit (251) responsive to display signals from a display controller for supplying amenable signal signal (E) for each Nth frame (see frame 1, 2, see figures 2 and 6), wherein N is an integer greater than zero an inherent is selectable from a plurality of value; and a second circuit (257) for enabling refreshing of the display by each Nth frame supplied to the display controller in response to the enable signal (see column 17, lines 54-66) and therefore preventing refreshing of the display by each other frame supplied to the display controller in the absence of the enable signal.

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Regarding claims 2-4, Ito discloses the display signals include frame synchronization signals (VSYNC) and the first circuit (251) is responsive to each Nth frame synchronization signal (VSYNC) (see X1 denotes the waveform of a signal voltage applied to a signal electrode 53 denoted by X1 in figure 5, see column 20, lines 57-58), and the first circuit is arranged to supply the enable signal for the duration of each frame, and the second circuit is arranged to connect the display to a power supply in response to the enable signal and to an inherent disconnect the display from the power supply in the absence of the enable signal (see figure 11, column 17, lines 54-66).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (US patent 6,426,594) in view of Ohara et al. (6,633,340).

Regarding claims 5-12, Ito discloses in figure 11, the second circuit (257) is arranged and which influences power consumption of the display (see column 17, lines 54-66), and the second circuit (257) is arranged to a memory read control signal of the display controller (see 257 having read signal), and the controller comprises a frame synchronization signal (see figure 1).

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Regarding claims 13-29, Ito discloses an inherent the first circuit includes means for fixing N at a value greater than one (because the frame 1F-2F greater than one), the first circuit comprises a preloadable synchronous counter (see figure 11, 18, see enable input CEI, output CEO, see column 17, lines 55-66), and the counter has a clock in put for receiving frame synchronization signal from the display controller (see clock signal XSCL and X1-Xm), and the counter enable input is connected to the enable input (see chip enable control circuit 251 having CEI and CEO), and a frame rate having an inherent reduction enable input, and the counter has a terminal count output for supplying the enable signal (see figure 11), and a load enable input connected to the terminal count output (see figure 11), and an active matrix display including a controller and comprising a liquid crystal display (see abstract, see figure 11). However, Ito does not disclose the counter enable is connected via D-type latch and set/reset flip-flop to the enable input, second circuit is arranged to gate at least one signal which influences power consumption of the display, the gate is a logic gate and also transmission gate and gate all of the display signal. Ohara et al. disclose in figure 7, a configuration for video signal having counters (60, 70) via D-type flip-flop (63-65, 73-75), a second circuit (see gate 21, 22), the gates 21-22 are transmission gate and also gate all the display signal (see figure 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of counters (60, 70) via D-type flip-flop (63-65, 73-75), a second circuit (see gate 21, 22), the gates 21-22 are transmission gate and also gate all the display signal as taught by Ohara et al. into the controller for controlling the frame refresh rate of an active matrix display of Ito because this would for alternating between two possible states when a pulse is received at the input.

**Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231


**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen  
January 21, 2004

  
**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**